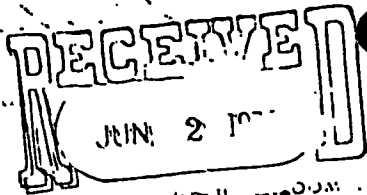


HARRY C. HASKELL JR. MAY 1970



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(Red)

## DEPARTMENT OF PUBLIC WORKS

May 27, 1970

MAY 28 1970

Mr. Donald K. Harmeson  
Division of Physical Health  
Bureau of Environmental Health  
Department of Health and Social Services  
State Health Building  
Dover, Delaware

Re: Application for Permit to  
Operate Sanitary Landfill

Dear Mr. Harmeson:

In accordance with the State Sanitary Code we are submitting, herewith, an application for permission to operate a Sanitary Landfill for the disposal of solid waste materials originating within the corporate limits of the City of Wilmington, Delaware.

Two copies of the proposed site and operating plan are attached, together with the following supporting information:

- (a) 1. NAME AND LOCATION: "City of Wilmington Sanitary Landfill.  
The site is located at the eastern end of Lambson's Lane, bounded as follows:  
On the East: Delaware River.  
On the West: New Castle Branch-Penn Central Railroad.  
On the North: Delaware River Branch of Reading Railroad  
"Pidgeon Point."  
On the South: State of Delaware: I-295.
2. OPERATOR OF LANDFILL:  
City of Wilmington, Delaware through:  
Hubert Kenney, Service Operations Supervisor  
Room 257, 1000 King Street, Wilmington, Delaware.  
Business Phone: 658-6641 Ext. 420  
Residence Phone: 764-9739

In the event of an emergency, the following persons may be called:

George L. Ryan, P.E., Deputy Commissioner of Public Works.  
Address: Same as Above  
Business Phone: 658-6641 Ext. 439  
Residence Phone: 656-6426

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OR  
William G. Turner, Jr. P.E. Commissioner of Public Works.  
Business Phone: 658-6641 Ext. 423  
Residence Phone: 764-5288

3. OWNER OF PROPERTY:  
The City of Wilmington will purchase this property and annex same to the City - if this application is approved.

4. DESIGN ENGINEER:  
William G. Turner, Jr. P.E. Delaware Registration NO.1859  
George L. Ryan, P.E., Delaware Registration NO.3841.

5. PERSONS RESPONSIBLE FOR OPERATION OF FACILITY:  
Please See (a) 2 above.

c) SERVICE AREA DEFINITION:  
Area within the corporate limits of the City of Wilmington, Delaware - approximately 16 square miles.

1. ESTIMATED REFUSE QUANTITIES:  
Approximately 400,000 cubic yards per year of Solid Waste/Refuse, as described in paragraph 38.114 of the Sanitary Code.  
Design Population is 85,000.

2. ESTIMATED WEIGHT AND VOLUME PER CAPITA PER DAY:  
Following data is derived from an eleven month study taken at present site:

<u>CITY TRUCKS</u>			
Compacted	-	150,600 c.y. @ 625#/c.y.	= 94,125,000#
Loose	-	22,800 c.y. @ 300#/c.y.	= 6,840,000#

<u>COMMERCIAL TRUCKS</u>			
Compacted	-	50,200 c.y. @ 625#/c.y.	= 31,375,000#
Loose	-	175,300 c.y. @ 300#/c.y.	= 52,590,000#
<u>TOTALS</u>			<u>398,900 c.y.</u>

$184,930,000/85,000/365 = 5.96 \text{ lbs/capita/day}^*$   
 $398,900/85,000/365 = 0.0127 \text{ cubic yards/capita/day}^*$

\* The above per capita weights and quantities are for combined solid waste/refuse.

Hazardous Wastes as described in paragraph 38.108 will be excluded.

Hazardous Wastes will be excluded as a general policy. In the event it becomes mandatory to accept such wastes they will be disposed of in separate, isolated disposal pits on the site.

#### ACREAGE AND USABLE DISPOSABLE VOLUME:

Total site consists of 207 acres of which 188 acres are planned to be used for solid waste disposal. The remaining 19 acres are to be used for disposal of excess excavated material not required for cover. It is estimated that the disposal volume will be approximately 2,800,000 cubic yards.

#### METHOD OF OPERATION:

This landfill will be operated by using the trench method. Trenches will be 100 feet wide, having a minimum 5'-0" undisturbed earth wall between each trench and a 5'-0" undisturbed earth wall at approximately 600 foot intervals for the length of the trench-2000' plus.

The proposed method of operation is to excavate for two vertical cells separated by a two-foot layer of cover material. The first and lower cell will be six feet in height, the second will be four-feet in height. Each cell will be covered with a 4-6" layer of earth at the end of each operating day. We estimate that the cells will be approximately 100 feet in width and 25-30 feet in length.

The top slope of the trench will be 1% to a longitudinal drainage ditch located over either undisturbed earth or the five foot division wall to be built as the fill exceeds present surface elevations.

Three separate disposal trenches are proposed:

A regular use trench.

An second alternate (in case the regular trench cannot be used for any emergency reason) located parallel to and 105' away from the regular use trench.

A more remote trench for rubber, tires, and bulky material: difficult to compact.

It is planned to use Snow Fencing or portable fence panels of suitable height to prevent paper from being blown away from the site, should such steps be necessary.

A professional pest exterminator will be employed to control rodents.

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1. EQUIPMENT TO BE USED:

- 1 - Front End Loader - 977 Caterpillar.
- 1 - Front End Loader - Rubber tired.
- 1 - Compactor, Wagner Model SF-17 or D-11 size Bulldozer.
- 2 - Draglines.
- 1 - Backhoe - Loader - Fordson.
- 1 - Dump Truck
- 1 - Pick Up Truck
- 1 - Field Office - Trailer.
- 1 - Auxilliary Water Pump.

2. EMPLOYEES:

- 2 - Labor Foremen.
- 4 - Equipment Operators.
- 1 - Oiler
- 6 - General Laborers.
- 4 - Watchmen

3. Hours and Days of Operation:

- 7:00 A.M. to 4:30 P.M. - Monday through Friday.
- 8:00 A.M. to 3:00 P.M. - Saturday.
- Closed Sundays and Holidays.
- Dump truck at gate during closed hours to receive refuse.

4. ESTIMATED ANNUAL COSTS:

- |                                  |             |
|----------------------------------|-------------|
| Salaries, Materials and Supplies | - \$250,000 |
| Maintenance of equipment         | - \$ 10,000 |

e) OPERATING PARAMETERS

- 1. Compaction will range from 30% to 50% through use of compactor and/or bulldozers.
- 2. Soil cover will range from Gray Silt and Sand to Gray Silty Clay. Areas has been diked and used as a spoil area for river dredgings.

f) GEOLOGICAL REPORT:

Boring data and engineering report attached.

g) GENERAL PLANS:

Attached.

h) LOCATION MAP:

Shown on general plans - Area Zoned as M-3.

i) CROSS SECTIONS:

Shown on general plans.